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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,045	11/18/2003	Daniel J. Weyers	GEM 0230PA	1044
27256	7590	02/12/2007	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			RAMIREZ, JOHN FERNANDO	
			ART UNIT	PAPER NUMBER
			3737	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/707,045	WEYERS ET AL.
	<b>Examiner</b> John F. Ramirez	<b>Art Unit</b> 3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 October 2006.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) 1-25 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Response to Arguments***

1. After a review of applicant's remarks filed October 23, 2006, the examiner of record acknowledges the amendment to the claims on pages 4-8.

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection. Therefore, the following new office action is provided in order to expedite the prosecution of this application.

### ***Specification***

2. The amendment filed October 23, 2006, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The phrases "longitudinally and parallel to the axis 36" and "The capacitors 112 are adjacently coupled via connections 113 therebetween. As such, the center ring 53, like the end rings 52 is circumferentially conductive".

And the new paragraph [0036]: "Each receiver circuit 74 has associated adjacent capacitors, which are coupled to receiver circuits on an opposing end ring. For example, receiver circuit 114, on the forward end ring 88, has adjacent capacitors 116, which are coupled to receiver circuits 118".

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Objections***

3. Claims 1-25 are objected to because of the following informalities:

Regarding claims 1-25, the phrase "circumferentially conductive"

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "circumferentially conductive" is considered new matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-10, 12-16, 18, and 19-20, 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Reisker et al .(US 6,344,745) in view of Murphy-Boesch et al. (US 5,194,811) or Srinivasan et al. (US 5,202,635) or Petropoulos et al. (US 6,788,058).

Reisker et al. teaches all the limitations of the claimed subject matter except for mentioning specifically an imaging coil comprising a circumferentially conductive center ring extending parallel to and coupled between the plurality of end rings.

However, an imaging coil comprising a circumferentially conductive center ring extending parallel to and coupled between the plurality of end rings is considered conventional in the art as evidenced by the teachings of Murphy-Boesch et al. (US 5,194,811) or Srinivasan et al. (US 5,202,635) or Petropoulos et al. (US 6,788,058).

The Murphy-Boesch et al. and the Srinivasan et al. patent teaches an imaging coil comprising a circumferentially conductive center ring extending parallel to and coupled between the plurality of end rings (see figures 2a and 2b). Moreover the Petropoulos et al. patent teaches in figures 1-10 a circumferentially conductive center ring coupled between the plurality of end rings.

Based on the above observations, for a person of ordinary skill in the art, modifying the coil system disclosed by Reisker et al., with the above discussed enhancements would have been considered obvious because such modifications would have improved capacitance, homogeneity and simultaneously, high signal to noise ratio performance of birdcage coils, resulting in better image quality.

6. Claims 6, 11, 17, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reisker et al. (US 6,344,745) in view of Murphy-Boesch et al. (US 5,194,811) or Srinivasan et al. (US 5,202,635) or Petropoulos et al. (US 6,788,058) or Burl et al. (US 6,396,271).

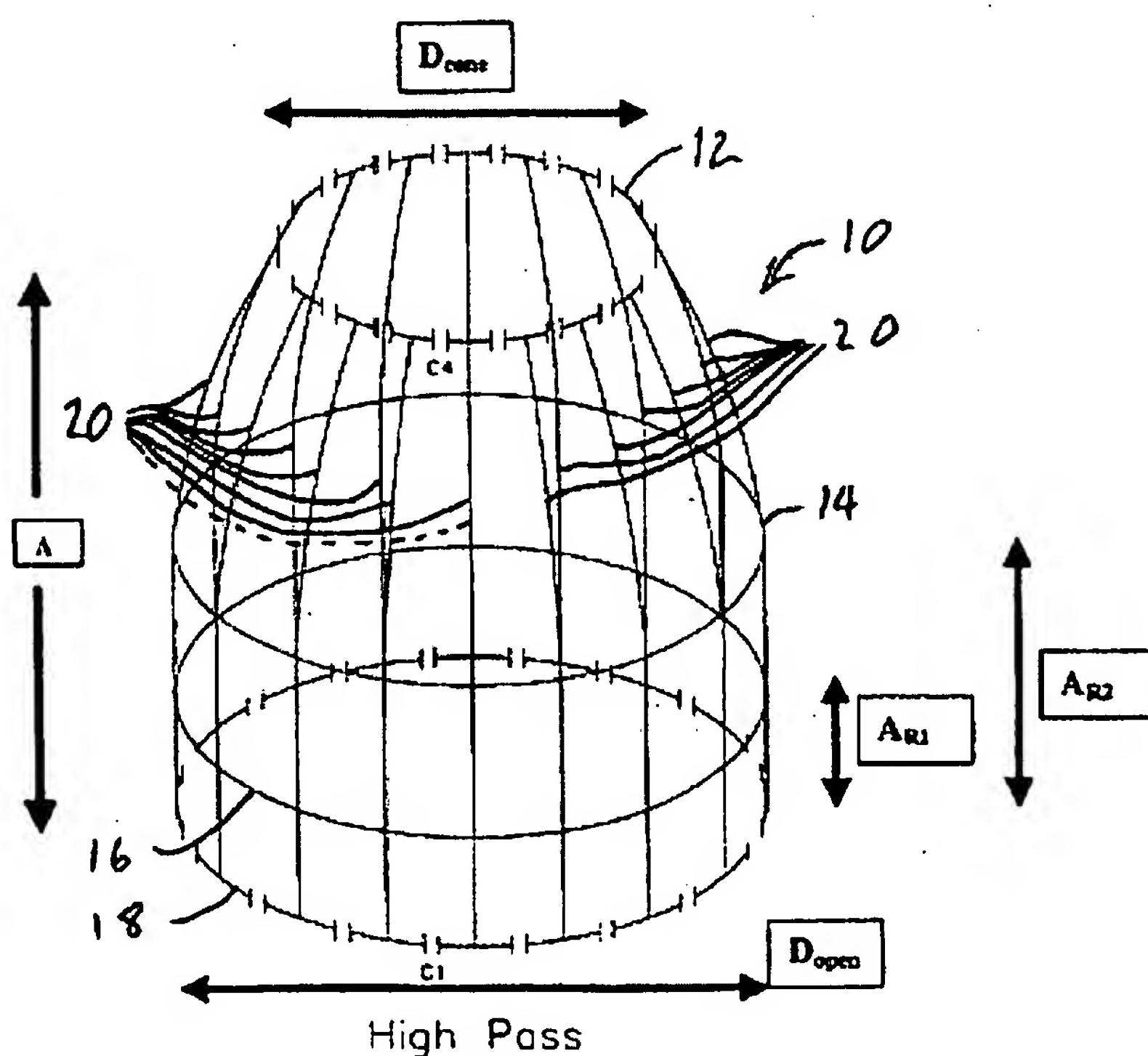


Figure 1

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Reisker et al. teaches all the limitations of the claimed subject matter except for mentioning specifically an imaging coil comprising a plurality of capacitors have low impedance at frequency levels of approximately greater than or equal to 120MHz, wherein said plurality of end rings are closer to said radio frequency shield than said at least one center ring, and wherein said plurality of end rings are farther away from the patient bore than said at least one center ring.

However, an imaging coil comprising: a plurality of legs comprising more than 16 legs, and wherein said plurality of capacitors have low impedance at frequency levels of approximately greater than or equal to 120MHz, wherein said plurality of end rings are closer to said radio frequency shield than said at least one center ring, and wherein said plurality of end rings are farther away from the patient bore than said at least one center ring is considered conventional in the art as evidenced by the teachings of Burl et al. and Petropoulos et al.

The Petropoulos et al. patent teaches plurality of capacitors have low impedance at frequency levels of approximately greater than or equal to 120MHz (see fig.10, C1,C4; col. 2 lines 1-41), wherein said plurality of end rings are closer to said radio frequency shield than said at least one center ring (see figures 1and 4), and wherein said plurality of end rings are farther away from the patient bore than said at least one center ring (see figures 1-10). Moreover, Burl et al. teaches plurality of capacitors have low impedance at frequency levels of approximately greater than or equal to 120MHz (col. 5, lines 35-51).

Based on the above observations, for a person of ordinary skill in the art, modifying the coil system disclosed by Reisker et al., with the above discussed enhancements would have been considered obvious because such modifications would have improved capacitance, homogeneity and simultaneously, high signal to noise ratio performance of birdcage coils, resulting in better image quality.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

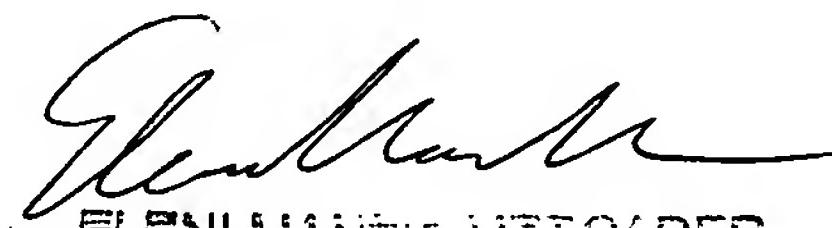
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John F. Ramirez whose telephone number is (571) 272-8685. The examiner can normally be reached on (Mon-Fri) 7:30 - 4:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JFR  
01/23/07



ELENI MAVRIDIS BERGADER  
SUPERVISORY PATENT EXAMINER